

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

What is claimed is:

1 Claim 1 (Currently Amended): An apparatus for closing a chamber, the chamber having a first  
2 chamber housing and a second chamber housing, comprising:  
3 means for forming a chamber including means for bringing the first chamber  
4 housing into contact with the second chamber housing such that the chamber is configured  
5 for sustaining supercritical fluid; and  
6 deforming means for preventing formation of particles while the first chamber  
7 housing contacts the second chamber housing, wherein the deforming means is mounted  
8 such that it deforms under a force that is substantially orthogonal to the chamber closing  
9 force on at least one of the first chamber housing and the second chamber housing such that  
10 it deforms to accommodate any misalignment while the means for forming a chamber  
11 operates.

1 Claim 2 (Original): The apparatus of claim 1 wherein the first chamber housing includes a first  
2 interior surface defining a first cavity.

1 Claim 3 (Original): The apparatus of claim 2 wherein the first interior surface defining a first cavity  
2 is sized to contain a semiconductor wafer for forming integrated circuits.

1 Claim 4 (Original): The apparatus of claim 2 wherein the second chamber housing includes a  
2 second interior surface defining a second cavity.

1 Claim 5 (Original): The apparatus of claim 4 wherein the second interior surface defining a second  
2 cavity is sized such that when juxtaposed with the first cavity a region thereby formed is  
3 sufficiently sized to contain a semiconductor wafer for forming integrated circuits.

1 Claim 6 (Original): The apparatus of claim 1 wherein the first chamber housing is mounted to a

2 structure for stabilizing the first chamber housing while the first chamber housing contacts  
3 the second chamber housing.

1 Claim 7 (Original): The apparatus of claim 6 wherein the second chamber housing is driven by a  
2 motivating structure, being constructed and arranged to move the second chamber housing in  
3 land out of contact with the first chamber housing.

1 Claim 8 (Original): The apparatus of claim 7 wherein the motivating structure is powered by at least  
2 one of a pneumatic source, a hydraulic source, a turbine, and a motor.

1 Claim 9 (Original): The apparatus of claim 7 wherein the motivating structure comprises:  
2 a body defining a casing; and  
3 a moveable member, being positioned in the casing and being reciprocable along  
4 an axis between a first position and a second position, wherein the second chamber housing  
5 contacts the first chamber housing while the moveable member is in the first position, and  
6 wherein the second chamber housing is not in contact with the first chamber housing while  
7 the moveable member is in the second position.

1 Claim 10 (Original): The apparatus of claim 9 wherein the deforming means comprises at least one  
2 of a material between a surface of the first chamber housing and a surface of the structure to  
3 which the first chamber housing is mounted, a material between a surface of the second  
4 chamber housing and a surface of the motivating structure, and a material between a surface  
5 of the moveable member and a surface of the casing.

1 Claim 11 (Original): The apparatus of claim 10 wherein the material comprises an abrasion resistant  
2 material characterized by high impact strength and having a low coefficient of friction.

1 Claim 12 (Original): The apparatus of claim 10 wherein the material comprises at least one of  
2 polyether ether ketone (PEEK™), thermoplastic resin, polyolefin type resin, polyamide resin,  
3 polyester resin, polyether resin, polynitrile resin, polymethacrylate resin, polyvinyl resin,  
4 cellulose resin, fluorine resin and a composition of PEEK™ and at least one of resins and  
5 fillers.

1 Claim 13 (Withdrawn): The apparatus of claim 1 further comprising alignment means for reducing  
2 an amplitude of relative motion between the first chamber housing and the second chamber  
3 housing while the first chamber housing contacts the second chamber housing.

4 Claim 14 (Withdrawn): The apparatus of claim 13 wherein the alignment means comprises a first  
5 chamber housing feature adapted to engage with a second chamber housing feature to  
6 particularly position the second chamber while the first chamber housing contacts the second  
7 chamber housing.

1 Claim 15 (Withdrawn): The apparatus of claim 14 wherein at least one of the first chamber housing  
2 feature and the second chamber housing feature comprises a protrudance, wherein the  
3 protrudance has a particularly shaped outer edge adapted to interfit with a recess defined in at  
4 least one of the first chamber housing and the second chamber housing.

1 Claim 16 (Withdrawn): The apparatus of claim 13 wherein the alignment means comprises a pin-  
2 like structure located on at least one of the first chamber housing and the second chamber  
3 housing and an aperture defined in at least one of the first chamber housing and the second  
4 chamber housing to securely receive the pin-like structure.

1 Claim 17 (Withdrawn): The apparatus of claim 16 wherein the aperture is elongated in shape and  
2 has at least one chamfered inner wall adapted to facilitate alignment of the aperture with the  
3 pin-like structure.

1 Claim 18 (Withdrawn): The apparatus of claim 1 wherein at least one of the first chamber housing  
2 and the second chamber housing comprises a manifold having thereon a plurality of fluid  
3 outlets for distributing a process fluid.

1 Claim 19 (Withdrawn): The apparatus of claim 1 further comprising means for performing a  
2 supercritical process.

1 Claim 20 (Withdrawn): The apparatus of claim 19 wherein the means for performing a supercritical  
2 process comprises means for circulating at least one of gaseous, liquid, supercritical and  
near-supercritical carbon dioxide in the chamber.

1 Claim 21 (Withdrawn): A method of closing a chamber, the chamber having a first chamber housing  
2 and a second chamber housing, comprising the steps of:  
3 a. forming a chamber including bringing the first chamber housing into contact with the  
4 second chamber housing; and  
5 b. preventing formation of particles while the first chamber housing contacts the second  
6 chamber housing.

1 Claim 22 (Withdrawn): The method of claim 21 wherein the step of forming a chamber comprises  
2 moving the second chamber housing in and out of contact with the first chamber housing.

1 Claim 23 (Withdrawn): The method of claim 21 wherein the step of preventing formation of  
2 particles comprises positioning a material on at least one of the first chamber housing and the  
3 second chamber housing such that the material deforms to accommodate any misalignment  
4 while forming a chamber.

1 Claim 24 (Withdrawn): The method of claim 23 wherein the material comprises an abrasion  
2 resistant material characterized by high impact strength and having a low coefficient of  
3 friction.

1 Claim 25 (Withdrawn): The method of claim 23 wherein the material comprises at least one of  
2 polyether ether ketone (PEEK™), thermoplastic resin, polyolefin type resin, polyamide resin,  
3 polyester resin, polyether resin, polynitrile resin, polymethacrylate resin, polyvinyl resin,  
4 cellulose resin, fluorine resin and a composition of PEEK™ and at least one of resins and  
5 fillers.

1 Claim 26 (Withdrawn): The method of claim 21 wherein the step of preventing formation of  
2 particles comprises configuring an alignment means for reducing an amplitude of relative  
3 motion between the first chamber housing and the second chamber housing while the first  
4 chamber housing contacts the second chamber housing.

1 Claim 27 (Withdrawn): The method of claim 26 wherein the step of employing an alignment means  
2 comprises configuring a first-chamber-housing feature to engage with a second-chamber-  
3 housing feature to particularly position the second chamber while the first chamber housing  
4 contacts the second chamber housing.

1 Claim 28 (Withdrawn): The method of claim 21 further comprising processing an object with a  
2 fluid.

1 Claim 29 (Withdrawn): The method of claim 28 wherein the step of processing an object with a  
2 fluid comprises processing a semiconductor wafer with at least one of gaseous, liquid,  
3 supercritical and near-supercritical carbon dioxide.

1 Claim 30 (Withdrawn): A method of eliminating particle generation at a platen/injection ring  
2 interface, comprising the steps of:  
3 a. forming a platen/injection ring interface including bringing a platen into contact with  
4 an injection ring; and  
5 b. positioning a material on at least one of the injection ring and the platen such that the  
6 material deforms to accommodate any misalignment while forming the  
7 platen/injection ring interface.

1 Claim 31 (Withdrawn): A method of 30 further comprising the step of configuring an alignment  
2 means for reducing an amplitude of relative motion between the platen and the injection ring  
3 while the platen contacts the injection ring.

1 Claim 32 (Withdrawn): The method of claim 30 further comprising the step of processing a  
2 semiconductor wafer with at least one of gaseous, liquid, supercritical and near-supercritical  
3 carbon dioxide.

1 Claim 33 (Currently Amended): An apparatus for closing a chamber, the chamber having a first  
2 chamber housing and a second chamber housing, comprising:  
3 means for forming a chamber including means for bringing the first chamber  
4 housing into contact with the second chamber housing; and  
5 deforming means for preventing formation of particles while the first chamber  
6 housing contacts the second chamber housing, wherein the deforming means is mounted on  
7 at least one of the first chamber housing and the second chamber housing such that it  
8 deforms to accommodate any misalignment while the means for forming a chamber operates  
9 wherein ~~at least one~~ the deforming means is positioned to deform in a direction substantially  
10 orthogonal to a chamber contact motivating force.

1 Claim 34 (Previously Presented): The apparatus of claim 33 wherein the first chamber housing is  
2 mounted to a structure for stabilizing the first chamber housing while the first chamber  
3 housing contacts the second chamber housing.

1 Claim 35 (Previously Presented): The apparatus of claim 34 wherein the second chamber housing is  
2 driven by a motivating structure, being constructed and arranged to move the second  
3 chamber housing in and out of contact with the first chamber housing.

1 Claim 36 (Previously Presented): The apparatus of claim 35 wherein the motivating structure  
2 comprises:  
3 a body defining a casing; and  
4 a moveable member, being positioned in the casing and being reciprocable along  
5 an axis between a first position and a second position, wherein the second chamber housing  
6 contacts the first chamber housing while the moveable member is in the first position, and  
7 wherein the second chamber housing is not in contact with the first chamber housing while  
8 the moveable member is in the second position.

1 Claim 37 (Currently Amended): An apparatus for closing a chamber, the chamber having a first  
2 chamber housing and a second chamber housing, comprising:  
3 means for forming a chamber including means for bringing the first chamber  
4 housing into contact with the second chamber housing such that the chamber is configured  
5 for sustaining supercritical fluid; and  
6 deforming means for preventing formation of particles while the first chamber  
7 housing contacts the second chamber housing, wherein the deforming means is mounted on  
8 at least one of the first chamber housing and the second chamber housing such that it  
9 deforms to accommodate any misalignment while the means for forming a chamber operates  
10 wherein the deforming means comprises of polyether ether keton (PEEK™) and wherein the  
11 deforming means is positioned to deform in a direction substantially orthogonal to a chamber  
12 contact motivating force.

1 Claim 38 (Previously Presented): The apparatus of claim 37 wherein the first chamber housing is  
2 mounted to a structure for stabilizing the first chamber housing while the first chamber  
3 housing contacts the second chamber housing.

1 Claim 39 (Previously Presented): The apparatus of claim 38 wherein the second chamber housing is  
2 driven by a motivating structure, being constructed and arranged to move the second  
3 chamber housing in and out of contact with the first chamber housing.

1 Claim 40 (Previously Presented): The apparatus of claim 39 wherein the deforming means  
2 comprises at least one of a material between a surface of the first chamber housing and a  
3 surface of the structure to which the first chamber housing is mounted, a material between a  
4 surface of the second chamber housing and a surface of the motivating structure, and a  
5 material between a surface of the moveable member and a surface of the casing.

1 Claim 41 (New): An apparatus for closing a chamber, comprising:  
2 a stabilizer structure;  
3 a first chamber housing mounted to the stabilizer structure;  
4 a second chamber housing configured with a substantially smooth surface to support  
5 a semiconductor wafer and configured to move into a closed position with the first chamber  
6 housing;  
7 a motivating structure which is mounted to apply a motivating force to move the  
8 second chamber housing from an open position to a closed position such that the chamber is  
9 formed capable of sustaining supercritical fluid;  
10 a casing element which guides the movement of the motivating structure; and  
11 a deformation element mounted to the motivating structure, positioned between the  
12 casing element and the motivating structure, such that the deformation element deforms  
13 under a deformation force substantially perpendicular to the motivating force to accommodate  
14 any misalignment between the first chamber housing and the second chamber housing during  
15 chamber closing, wherein the deforming element comprises polyether ether keton.

1 Claim 42 (New): An apparatus for closing a chamber, comprising:  
2 a stabilizer structure;  
3 a first chamber housing mounted to the stabilizer structure;  
4 a second chamber housing configured with a substantially smooth surface to support  
5 a semiconductor wafer and configured to move into a closed position with the first chamber  
6 housing;

7           a motivating structure which is mounted to apply a motivating force to move the  
8 second chamber housing from an open position to a closed position such that the chamber is  
9 formed capable of sustaining supercritical fluid;

10           a casing element which guides the movement of the motivating structure;

11           a first deformation element mounted to the motivating structure, positioned between  
12 the casing element and the motivating structure, such that the deformation element deforms  
13 under a deformation force substantially perpendicular to the motivating force to accommodate  
14 any misalignment between the first chamber housing and the second chamber housing during  
15 chamber closing, wherein the deforming element comprises polyether ether keton; and

16           a second deformation element, located between the motivating structure and the  
17 stabilizer structure, wherein the second deformation element deforms under a deformation  
18 force substantially aligned with the motivating force to accommodate any misalignment  
19 between the first chamber housing and the second chamber housing during chamber closing,  
20 wherein the deforming element comprises polyether ether keton.  
21

1   Claim 43 (New): An apparatus for closing a chamber, comprising:

2           a stabilizer structure;

3           a first chamber housing mounted to the stabilizer structure;

4           a second chamber housing configured with a substantially smooth surface to support  
5 a semiconductor wafer and configured to move into a closed position with the first chamber;

6           a motivating structure which is mounted to apply a motivating force to move the  
7 second chamber housing from an open position to a closed position such that the chamber is  
8 formed capable of sustaining supercritical fluid;

9           a casing element which guides the movement of the motivating structure; and

10           a deformation element, located between the motivating structure and the stabilizer  
11 structure, wherein the deformation element deforms under a deformation force substantially  
12 aligned with the motivating force to accommodate any misalignment between the first  
13 chamber housing and the second chamber housing during chamber closing, wherein the  
14 deforming element comprises polyether ether keton.